COSEL On-board type

ZUS1R5

Ordering information

ZU	S	1R5	12	05	
①	②	③	④	⑤	

①Series name
②Single output
③Output wattage
④Input voltage
⑤Output voltage



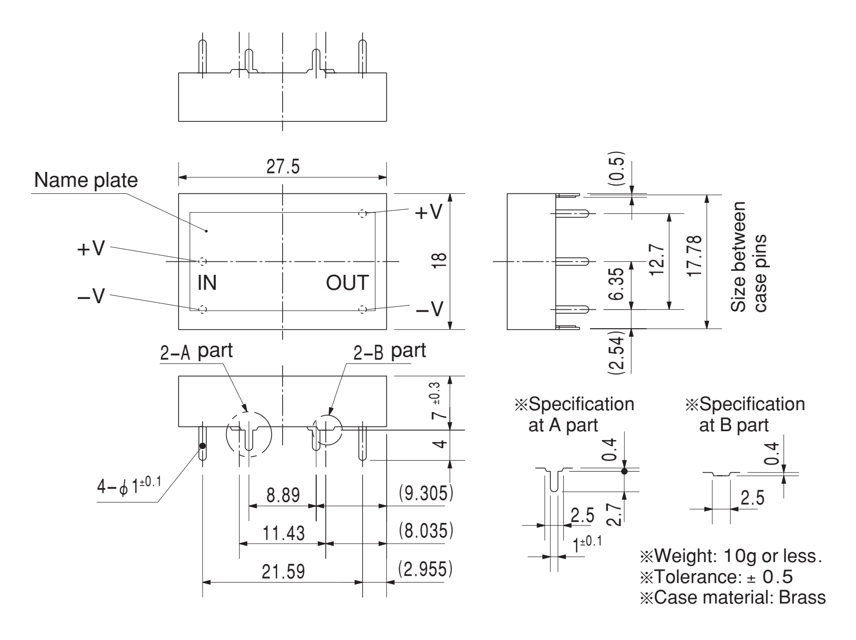
MODEL		ZUS1R50505	ZUS1R50512	ZUS1R50515	ZUS1R51205	ZUS1R51212	ZUS1R51215	ZUS1R52405	ZUS1R52412	ZUS1R52415	ZUS1R54805	ZUS1R54812	ZUS1R54815
MAX OUTPUT WATTAGE[W]		1.50	1.56	1.50	1.50	1.56	1.50	1.50	1.56	1.50	1.50	1.56	1.50
DC OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12	15
	CURRENT[A]	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10

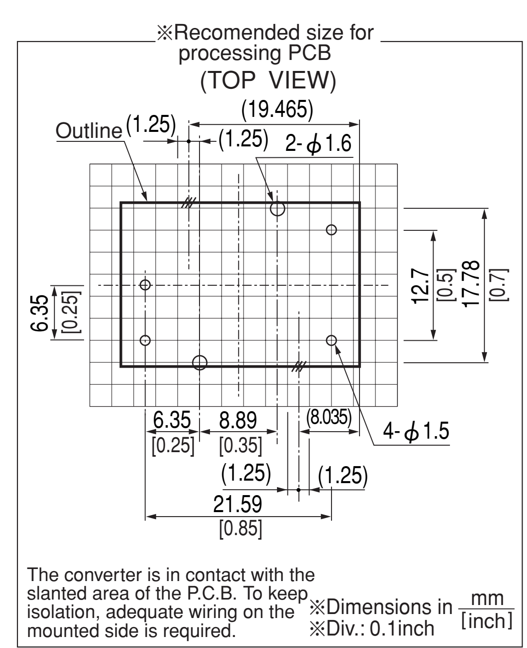
SPECIFICATIONS

	MODEL	ZUS1R50505	ZUS1R50512	ZUS1R50515	ZUS1R51205	ZUS1R51212	ZUS1R51215	ZUS1R52405	ZUS1R52412	ZUS1R52415	ZUS1R54805	ZUS1R54812	ZUS1R54815
INPUT	VOLTAGE[V]	DC4.5 - 9			DC9 - 18			DC18 - 36			DC36 - 72		
	CURRENT[A] *1	0.441typ	0.459typ	0.441typ	0.176typ	0.183typ	0.176typ	0.088typ	0.092typ	0.088typ	0.043typ	0.045typ	0.043typ
	EFFICIENCY[%] *1	68typ	68typ	68typ	71typ	71typ	71typ	71typ	71typ	71typ	73typ	73typ	73typ
OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12	15
	CURRENT[A]	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10
	LINE REGULATION[mV]	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max
	LOAD REGULATION[mV]	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	100max	120max
	RIPPLE[mVp-p] *2	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max
	RIPPLE NOISE[mVp-p] *2	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max
	TEMPERATURE REGULATION[mV] -20 to +55℃	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	150max	180max
	DRIFT[mV] *3	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max
	START-UP TIME[ms]	20max (Minimum input, Io=100%)											
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed											
	OUTPUT VOLTAGE SETTING[V]	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically											
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)											
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)											
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)											
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-20 to +71℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max											
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +85℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max											
	VIBRATION	10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis											
	IMPACT	490.3m/s² (50G), 11ms, once each X, Y and Z axis											
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, EN50178, CSA C22.2 No.60950-1 Complies with IEC60950-1											
OTHERS	CASE SIZE/WEIGHT	27.5×7×18mm (W×H×D) / 10g max											
	COOLING METHOD	Convection											

*1 Rated input 5V, 12V, 24V or 48V DC Io=100%.
*2 Measured by 20MHz oscilloscope.
*3 The drift is a change at 25℃ of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.
* Series/Parallel operation with other model is not possible.

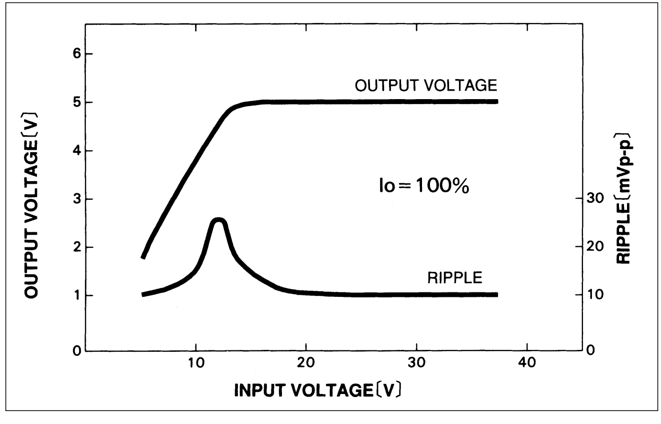
External view





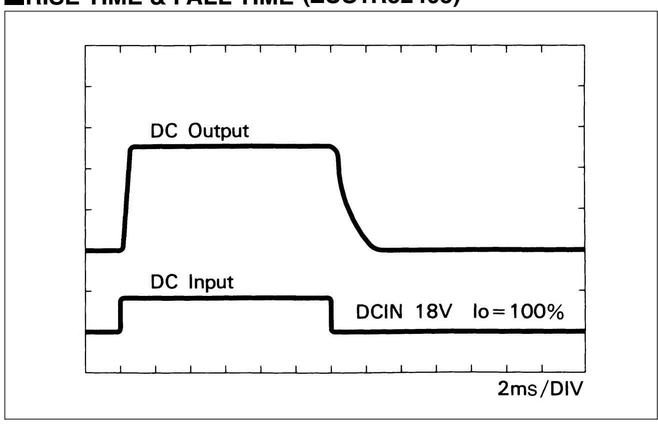
Performance data

■STATIC CHARACTERISTICS (ZUS1R52405)

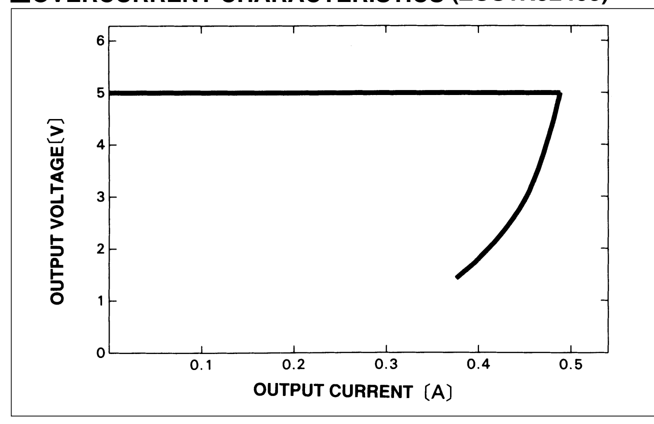


■RISE TIME & FALL TIME (ZUS1R52405)

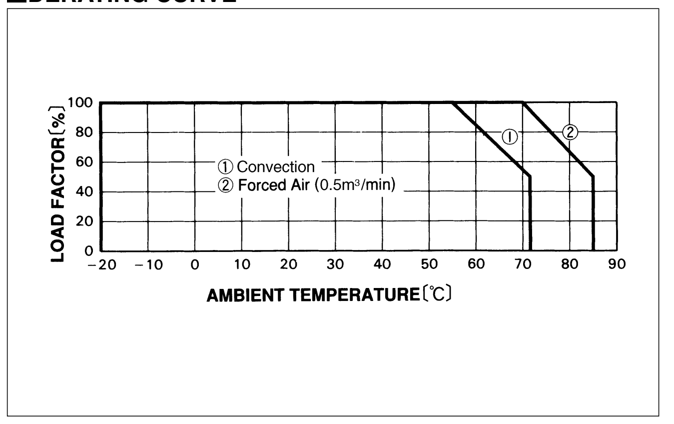




■OVERCURRENT CHARACTERISTICS (ZUS1R52405)



■DERATING CURVE



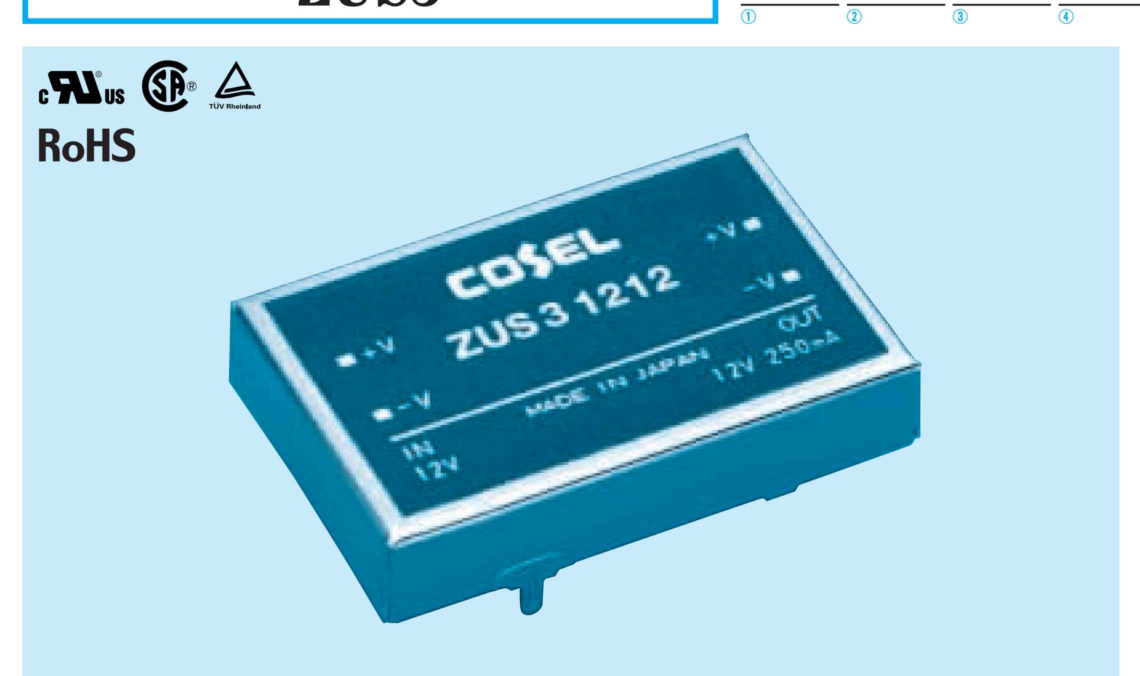
COSEL On-board type

ZUS3

Ordering information

ZU	S	3	12	05	
①	②	③	④	⑤	

①Series name
②Single output
③Output wattage
④Input voltage
⑤Output voltage



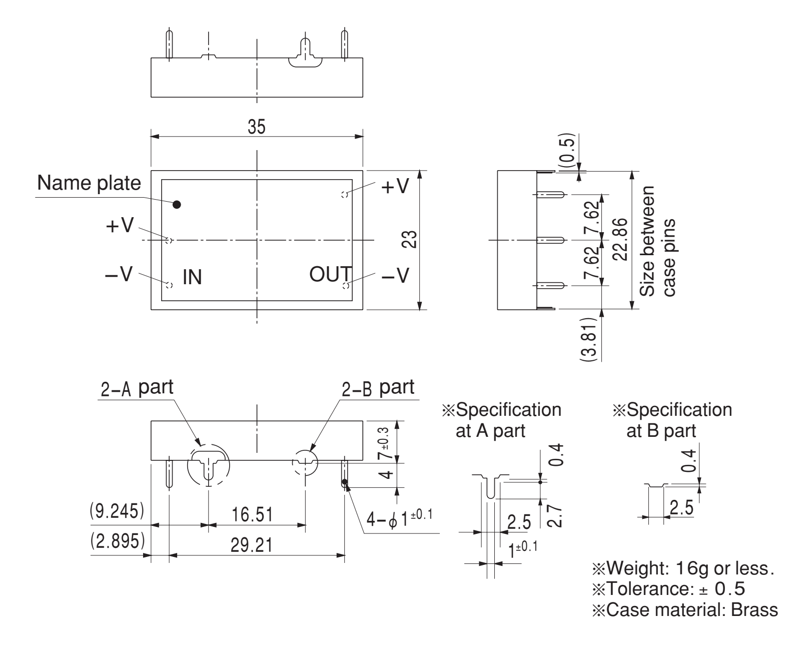
MODEL		ZUS30505	ZUS30512	ZUS30515	ZUS31205	ZUS31212	ZUS31215	ZUS32405	ZUS32412	ZUS32415	ZUS34805	ZUS34812	ZUS34815
MAX OUTPUT WATTAGE[W]		3	3	3	3	3	3	3	3	3	3	3	3
DC OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12	15
	CURRENT[A]	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20

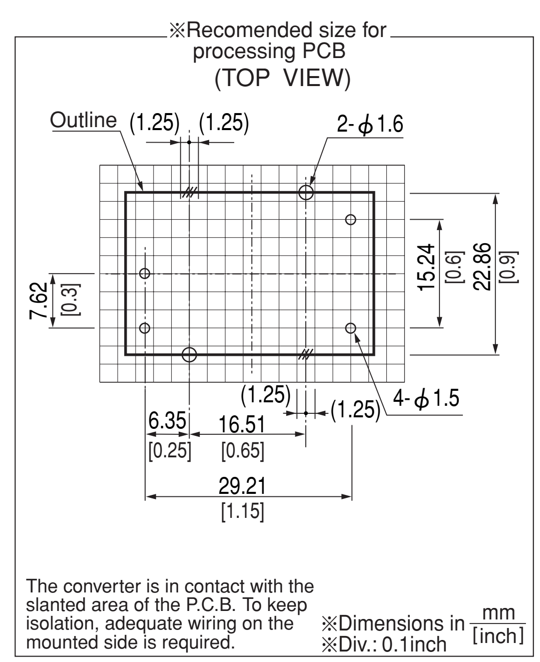
SPECIFICATIONS

	MODEL		ZUS30505	ZUS30512	ZUS30515	ZUS31205	ZUS31212	ZUS31215	ZUS32405	ZUS32412	ZUS32415	ZUS34805	ZUS34812	ZUS34815
INPUT	VOLTAGE[V]		DC4.5 - 9			DC9 - 18			DC18 - 36			DC36 - 72		
	CURRENT[A]	*1	0.896typ	0.857typ	0.857typ	0.357typ	0.338typ	0.338typ	0.176typ	0.167typ	0.167typ	0.088typ	0.082typ	0.082typ
	EFFICIENCY[%]	*1	67typ	70typ	70typ	70typ	74typ	74typ	71typ	75typ	75typ	71typ	76typ	76typ
OUTPUT	VOLTAGE[V]		5	12	15	5	12	15	5	12	15	5	12	15
	CURRENT[A]		0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20
	LINE REGULATION[mV]		20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max
	LOAD REGULATION[mV]		40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	100max	120max
	RIPPLE[mVp-p]	*2	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max
	RIPPLE NOISE[mVp-p]	*2	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max
	TEMPERATURE REGULATION[mV]	-20 to +55℃	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	150max	180max
	DRIFT[mV]	*3	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max
	START-UP TIME[ms]		20max (Minimum input, Io=100%)											
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		Fixed											
	OUTPUT VOLTAGE SETTING[V]		4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75
PROTECTION CIRCUIT	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically											
ISOLATION	INPUT-OUTPUT		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)											
	INPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)											
	OUTPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)											
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-20 to +71℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max											
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max											
	VIBRATION		10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis											
	IMPACT		490.3m/s² (50G), 11ms, once each X, Y and Z axis											
SAFETY	AGENCY APPROVALS		UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1											
OTHERS	CASE SIZE/WEIGHT		35×7×23mm (W×H×D) / 16g max											
	COOLING METHOD		Convection											

*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%
*2 Measured by 20MHz oscilloscope.
*3 The drift is a change at 25℃ of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.
* Series/Parallel operation with other model is not possible.

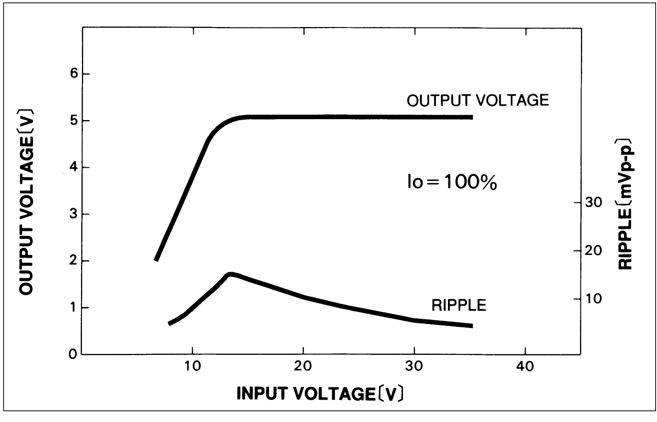
External view





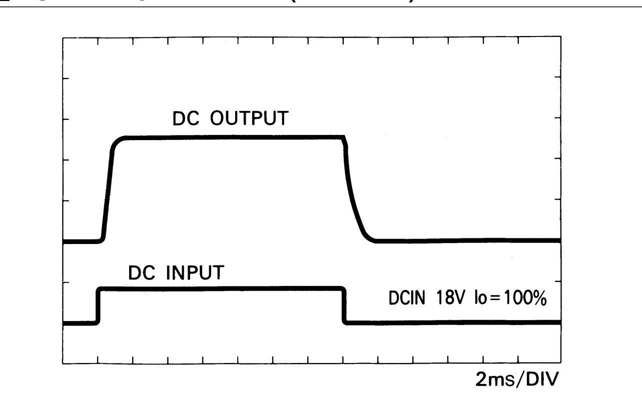
Performance data

■STATIC CHARACTERISTICS (ZUS32405)

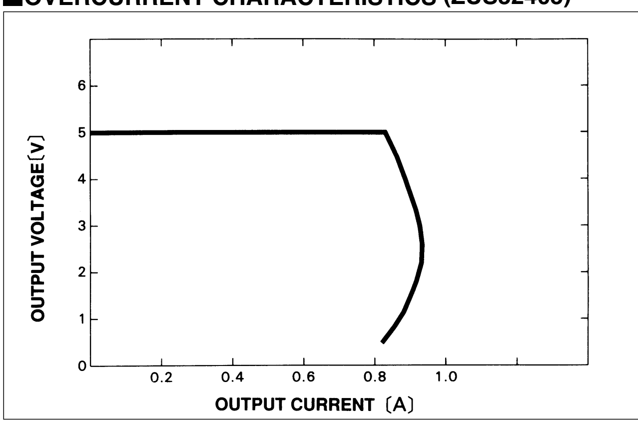


■RISE TIME & FALL TIME (ZUS32405)

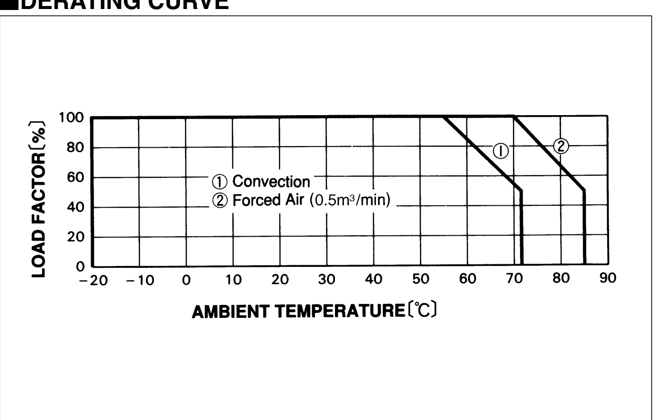




■OVERCURRENT CHARACTERISTICS (ZUS32405)



■DERATING CURVE



COSEL On-board type

ZUS6

Ordering information

ZU	S	6	12	05	
①	②	③	④	⑤	

①Series name
②Single output
③Output wattage
④Input voltage
⑤Output voltage



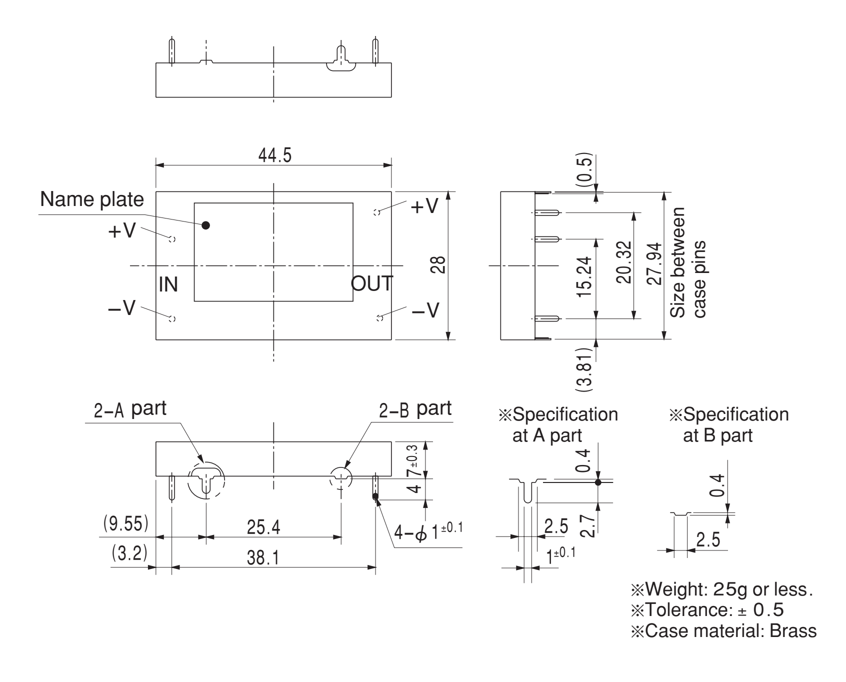
MODEL		ZUS6053R3	ZUS60505	ZUS60512	ZUS60515	ZUS61205	ZUS61212	ZUS61215	ZUS62405	ZUS62412	ZUS62415	ZUS6483R3	ZUS64805	ZUS64812	ZUS64815
MAX OUTPUT WATTAGE[W]		3.3	5	6	6	6	6	6	6	6	6	3.96	6	6	6
DC OUTPUT	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15
	CURRENT[A]	1.0	1.0	0.5	0.4	1.2	0.5	0.4	1.2	0.5	0.4	1.2	1.2	0.5	0.4

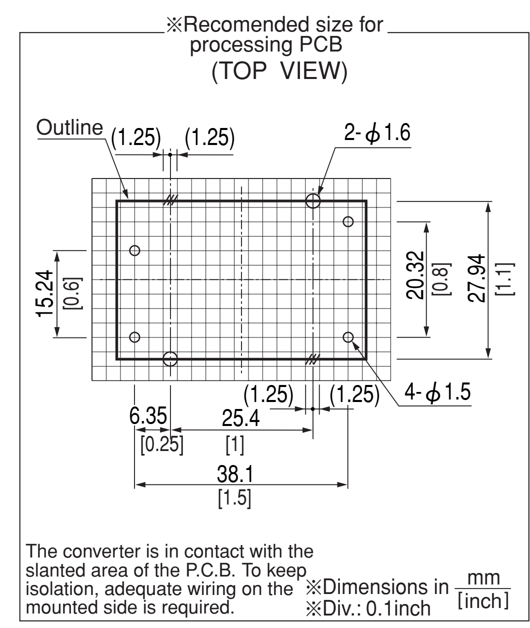
SPECIFICATIONS

	MODEL	ZUS6053R3	ZUS60505	ZUS60512	ZUS60515	ZUS61205	ZUS61212	ZUS61215	ZUS62405	ZUS62412	ZUS62415	ZUS6483R3	ZUS64805	ZUS64812	ZUS64815
INPUT	VOLTAGE[V]	DC4.5 - 9				DC9 - 18			DC18 - 36			DC36 - 72			
	CURRENT[A] *1	0.94typ	1.41typ	1.63typ	1.63typ	0.69typ	0.65typ	0.65typ	0.35typ	0.33typ	0.33typ	0.09typ	0.18typ	0.17typ	0.17typ
	EFFICIENCY[%] *1	70typ	71typ	74typ	74typ	73typ	78typ	78typ	73typ	78typ	78typ	73typ	73typ	78typ	78typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15
	CURRENT[A]	1.0	1.0	0.5	0.4	1.2	0.5	0.4	1.2	0.5	0.4	1.2	1.2	0.5	0.4
	LINE REGULATION[mV]	20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max
	LOAD REGULATION[mV]	40max	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	40max	100max	120max
	RIPPLE[mVp-p] *2	80max	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	80max	120max	120max
	RIPPLE NOISE[mVp-p] *2	120max	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	120max	150max	150max
	TEMPERATURE REGULATION[mV] -20 to +55℃	50max	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	50max	150max	180max
	DRIFT[mV] *3	20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max
	START-UP TIME[ms]	20max (Minimum input, Io=100%)													
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed													
	OUTPUT VOLTAGE SETTING[V]	3.20 - 3.47	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	3.20 - 3.47	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically													
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)													
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)													
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)													
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-20 to +71℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max													
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +85℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max													
	VIBRATION	10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis													
	IMPACT	490.3m/s² (50G), 11ms, once each X, Y and Z axis													
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1													
OTHERS	CASE SIZE/WEIGHT	44.5×7×28mm (W×H×D) / 25g max													
	COOLING METHOD	Convection													

*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%
*2 Measured by 20MHz oscilloscope.
*3 The drift is a change at 25℃ of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.
* Series/Parallel operation with other model is not possible.

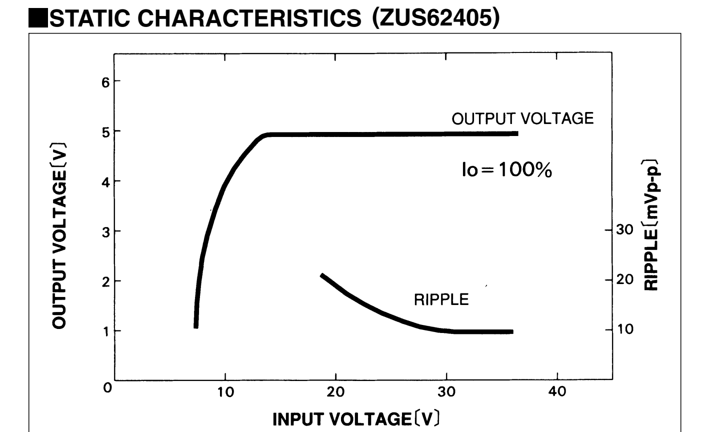
External view



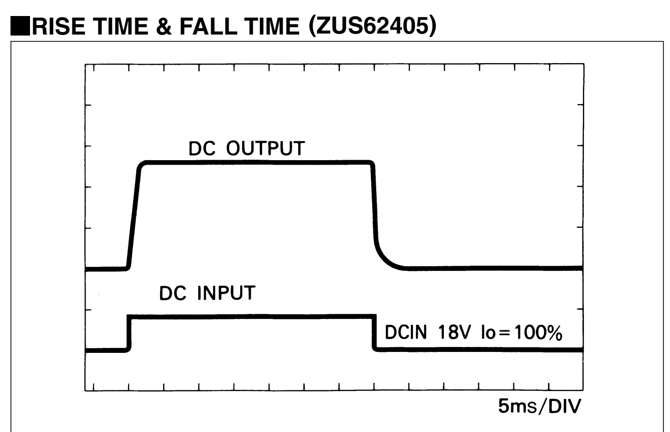


Performance data

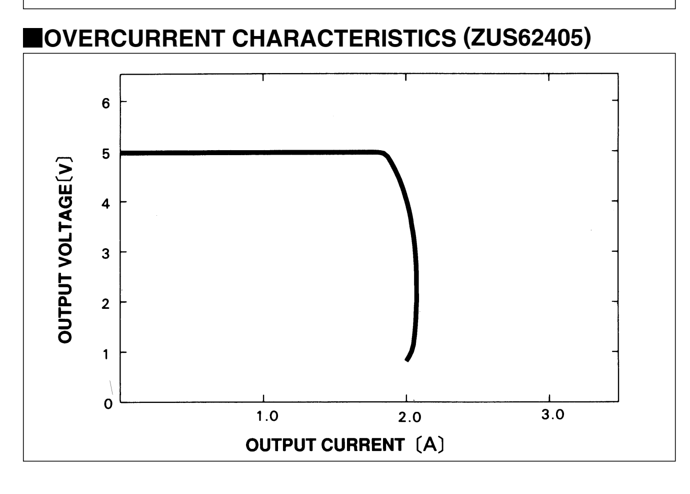
■STATIC CHARACTERISTICS (ZUS62405)



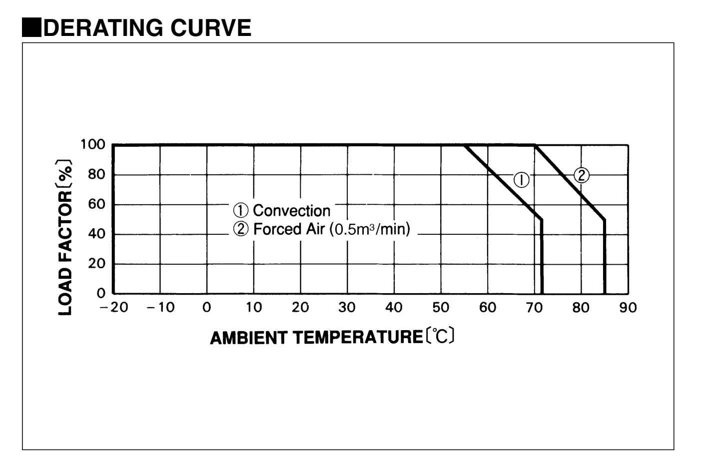
■RISE TIME & FALL TIME (ZUS62405)



■OVERCURRENT CHARACTERISTICS (ZUS62405)



■DERATING CURVE



COSEL On-board type

ZUS10

Ordering information

ZU	S	10	12	05	
①	②	③	④	⑤	

①Series name
②Single output
③Output wattage
④Input voltage
⑤Output voltage



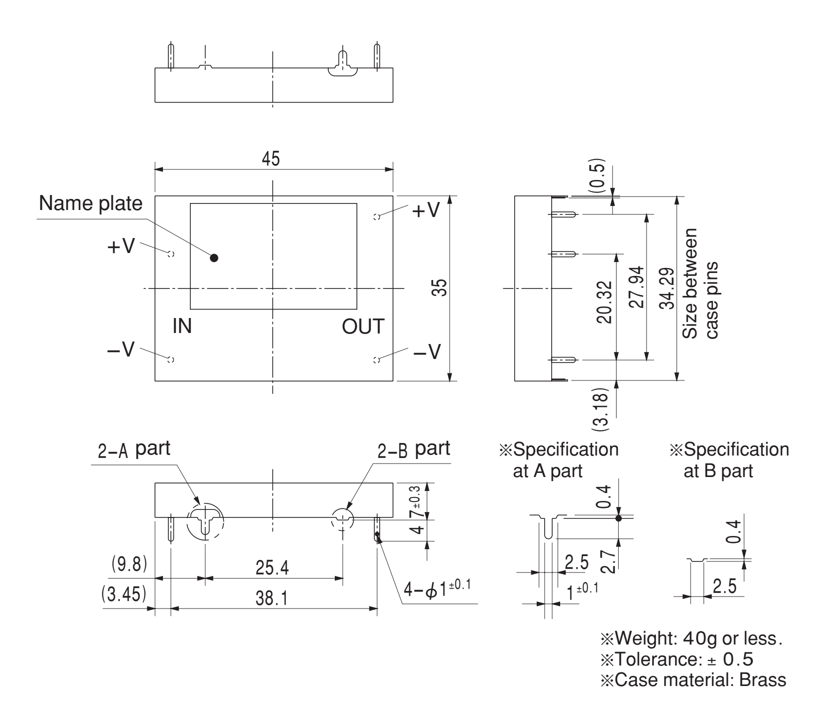
MODEL		ZUS10053R3	ZUS100505	ZUS100512	ZUS100515	ZUS101205	ZUS101212	ZUS101215	ZUS102405	ZUS102412	ZUS102415	ZUS10483R3	ZUS104805	ZUS104812	ZUS104815
MAX OUTPUT WATTAGE[W]		5.28	8.0	8.4	9.0	10.0	10.8	10.5	10.0	10.8	10.5	6.6	10.0	10.8	10.5
DC OUTPUT	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15
	CURRENT[A]	1.6	1.6	0.7	0.6	2.0	0.9	0.7	2.0	0.9	0.7	2.0	2.0	0.9	0.7

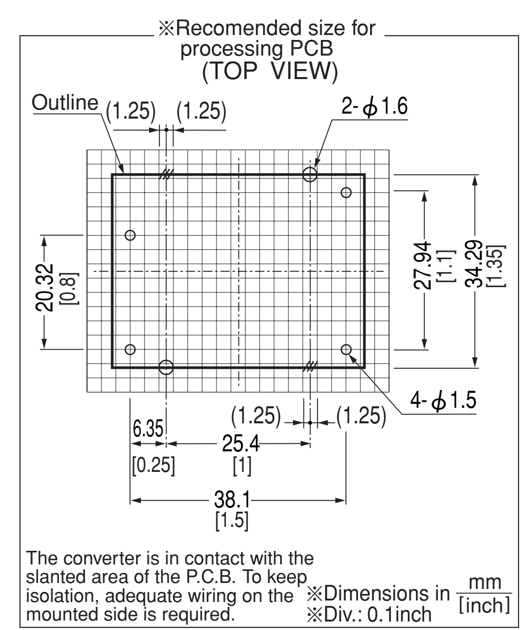
SPECIFICATIONS

	MODEL		ZUS10053R3	ZUS100505	ZUS100512	ZUS100515	ZUS101205	ZUS101212	ZUS101215	ZUS102405	ZUS102412	ZUS102415	ZUS10483R3	ZUS104805	ZUS104812	ZUS104815
INPUT	VOLTAGE[V]		DC4.5 - 9				DC9 - 18			DC18 - 36			DC36 - 72			
	CURRENT[A]	*1	1.48typ	2.14typ	2.24typ	2.40typ	1.05typ	1.10typ	1.07typ	0.53typ	0.55typ	0.54typ	0.18typ	0.27typ	0.28typ	0.27typ
	EFFICIENCY[%]	*1	72typ	75typ	75typ	75typ	80typ	82typ	82typ	80typ	82typ	82typ	75typ	80typ	82typ	82typ
OUTPUT	VOLTAGE[V]		3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15
	CURRENT[A]		1.6	1.6	0.7	0.6	2.0	0.9	0.7	2.0	0.9	0.7	2.0	2.0	0.9	0.7
	LINE REGULATION[mV]		20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max
	LOAD REGULATION[mV]		40max	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	40max	100max	120max
	RIPPLE[mVp-p]	*2	80max	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	80max	120max	120max
	RIPPLE NOISE[mVp-p]	*2	120max	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	120max	150max	150max
	TEMPERATURE REGULATION[mV]	-20 to +55℃	50max	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	50max	150max	180max
	DRIFT[mV]	*3	20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max
	START-UP TIME[ms]		20max (Minimum input, Io=100%)													
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		Fixed													
	OUTPUT VOLTAGE SETTING[V]		3.20 - 3.47	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	3.20 - 3.47	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75
PROTECTION CIRCUIT	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically													
ISOLATION	INPUT-OUTPUT		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)													
	INPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)													
	OUTPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)													
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-20 to +71℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max													
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max													
	VIBRATION		10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis													
	IMPACT		490.3m/s² (50G), 11ms, once each X, Y and Z axis													
SAFETY	AGENCY APPROVALS		UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1													
OTHERS	CASE SIZE/WEIGHT		45×7×35mm (W×H×D) / 40g max													
	COOLING METHOD		Convection													

*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%
*2 Measured by 20MHz oscilloscope.
*3 The drift is a change at 25℃ of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.
* Series/Parallel operation with other model is not possible.

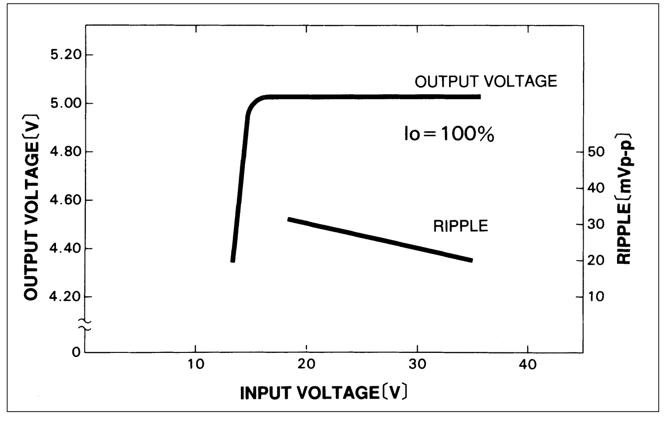
External view





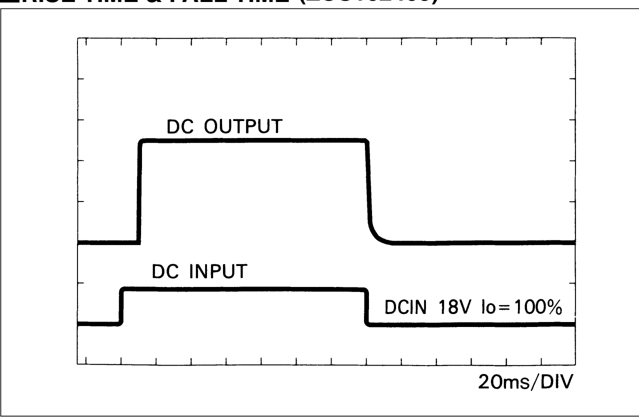
Performance data

■STATIC CHARACTERISTICS (ZUS102405)

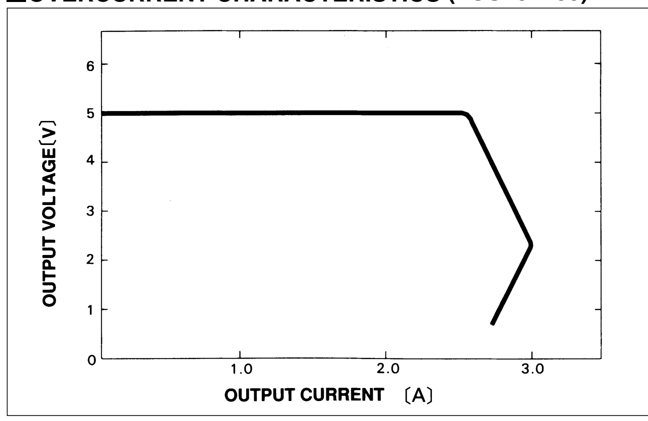


■RISE TIME & FALL TIME (ZUS102405)

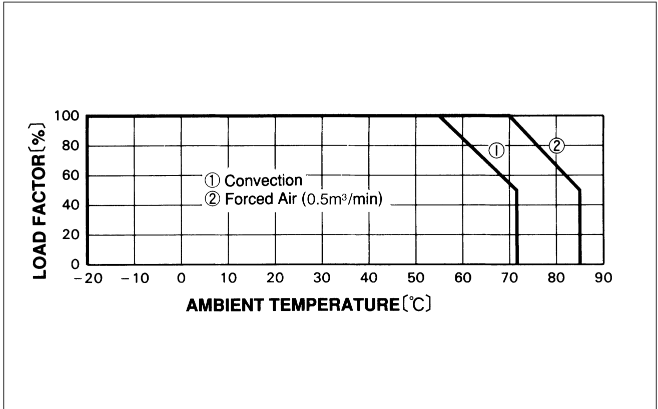




■OVERCURRENT CHARACTERISTICS (ZUS102405)



■DERATING CURVE



COSEL **On-board type**

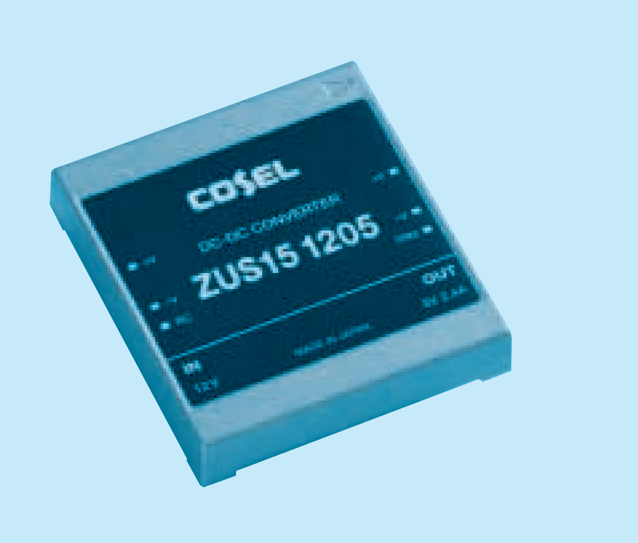
ZUS15

Ordering information

ZU	S	15	12	05	
①	②	③	④	⑤	

①Series name
②Single output
③Output wattage
④Input voltage
⑤Output voltage





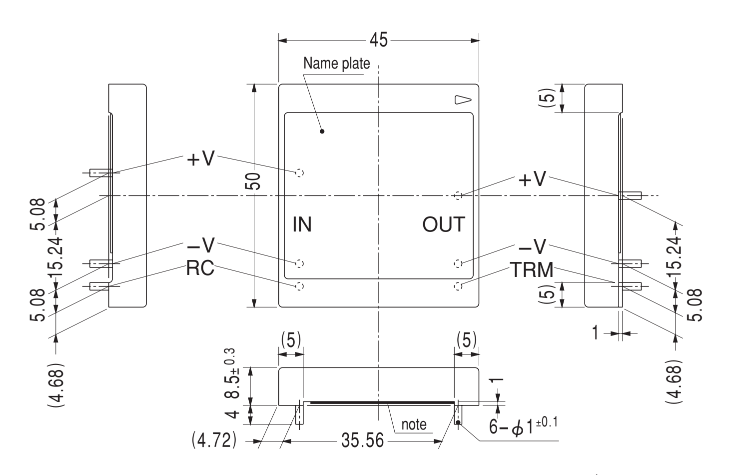
MODEL		ZUS15053R3	ZUS150505	ZUS150512	ZUS151205	ZUS151212	ZUS152405	ZUS152412	ZUS15483R3	ZUS154805	ZUS154812
MAX OUTPUT WATTAGE[W]		6.6	10.0	12.0	12.0	15.6	12.0	15.6	7.92	12.0	15.6
DC OUTPUT	VOLTAGE[V]	3.3	5	12	5	12	5	12	3.3	5	12
	CURRENT[A]	2.0	2.0	1.0	2.4	1.3	2.4	1.3	2.4	2.4	1.3

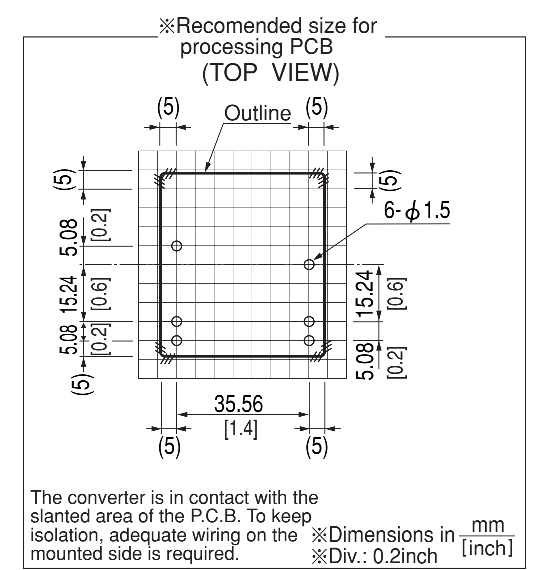
SPECIFICATIONS

	MODEL	ZUS15053R3	ZUS150505	ZUS150512	ZUS151205	ZUS151212	ZUS152405	ZUS152412	ZUS15483R3	ZUS154805	ZUS154812
INPUT	VOLTAGE[V]	DC4.5 - 9			DC9 - 18		DC18 - 36		DC36 - 75		
	CURRENT[A] *1	1.83typ	2.50typ	2.96typ	1.25typ	1.57typ	0.63typ	0.78typ	0.21typ	0.31typ	0.39typ
	EFFICIENCY[%] *1	72typ	80typ	81typ	80typ	83typ	80typ	83typ	78typ	80typ	83typ
OUTPUT	VOLTAGE[V]	3.3	5	12	5	12	5	12	3.3	5	12
	CURRENT[A]	2.0	2.0	1.0	2.4	1.3	2.4	1.3	2.4	2.4	1.3
	LINE REGULATION[mV]	20max	20max	48max	20max	48max	20max	48max	20max	20max	48max
	LOAD REGULATION[mV]	40max	40max	100max	40max	100max	40max	100max	40max	40max	100max
	RIPPLE[mVp-p] *2	80max	80max	120max	80max	120max	80max	120max	80max	80max	120max
	RIPPLE NOISE[mVp-p] *2	120max	120max	150max	120max	150max	120max	150max	120max	120max	150max
	TEMPERATURE REGULATION[mV] 0 to +55℃	50max	50max	150max	50max	150max	50max	150max	50max	50max	150max
	DRIFT[mV] *3	20max	20max	48max	20max	48max	20max	48max	20max	20max	48max
	START-UP TIME[ms]	100max (Minimum input, Io=100%)									
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Internally fixed (TRM pin open), adjustable by external VR									
		3.20 - 3.47	±5%						3.20 - 3.47	±5%	
	OUTPUT VOLTAGE SETTING[V]	3.20 - 3.47	4.85 - 5.25	11.4 - 12.6	4.85 - 5.25	11.4 - 12.6	4.85 - 5.25	11.4 - 12.6	3.20 - 3.47	4.85 - 5.25	11.4 - 12.6
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically									
	OVERVOLTAGE PROTECTION	4.0 - 5.25V	Works at 115 - 140% of rating						4.0 - 5.25V	Works at 115 - 140% of rating	
	REMOTE ON/OFF	Between RC and -side of input:short - 1.2V ・・・output ON, 2.4V - 5.5V(or open)・・・output OFF, Compatible to TTL									
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)									
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)									
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)									
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-20 to +71℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max									
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +85℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max									
	VIBRATION	10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis									
	IMPACT	490.3m/s² (50G), 11ms, once each X, Y and Z axis									
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1									
OTHERS	CASE SIZE/WEIGHT	45×8.5×50mm (W×H×D) / 55g max									
	COOLING METHOD	Convection									

*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%
*2 Measured by 20MHz oscilloscope.
*3 The drift is a change at 25℃ of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.
* Series/Parallel operation with other model is not possible.

External view

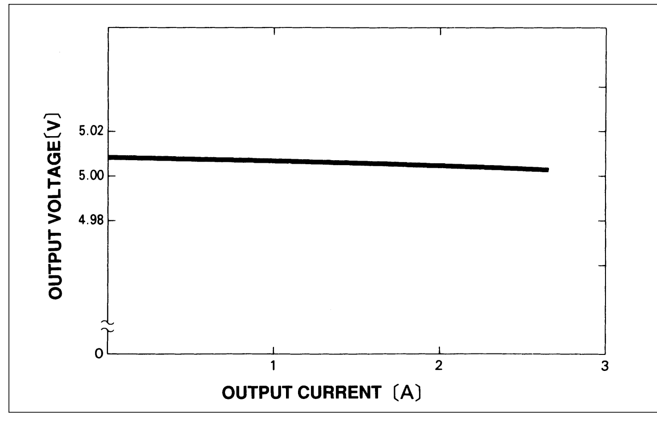




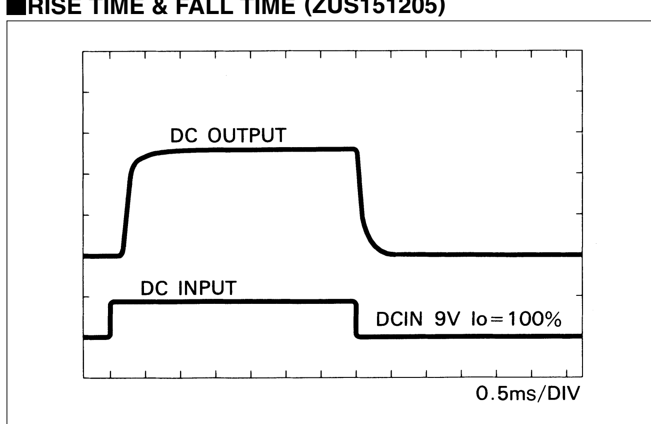
note) Internal parts
※Weight: 55g or less.
※Tolerance: ± 0.5
※Case material: Aluminum

Performance data

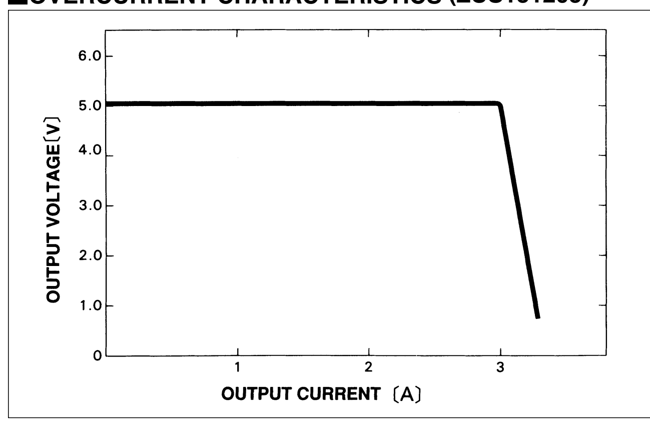
STATIC CHARACTERISTICS (ZUS151205)



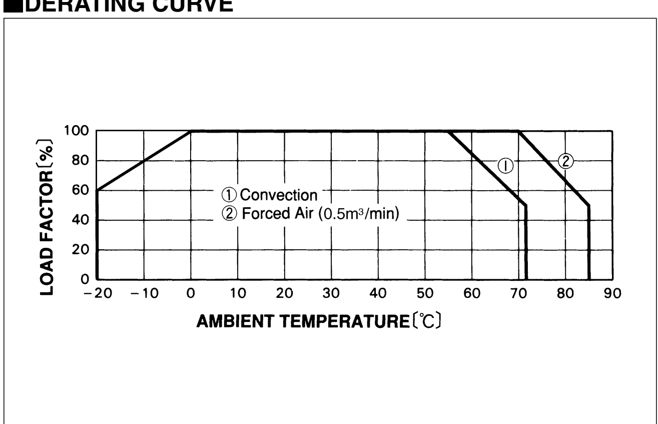
RISE TIME & FALL TIME (ZUS151205)



OVERCURRENT CHARACTERISTICS (ZUS151205)



DERATING CURVE



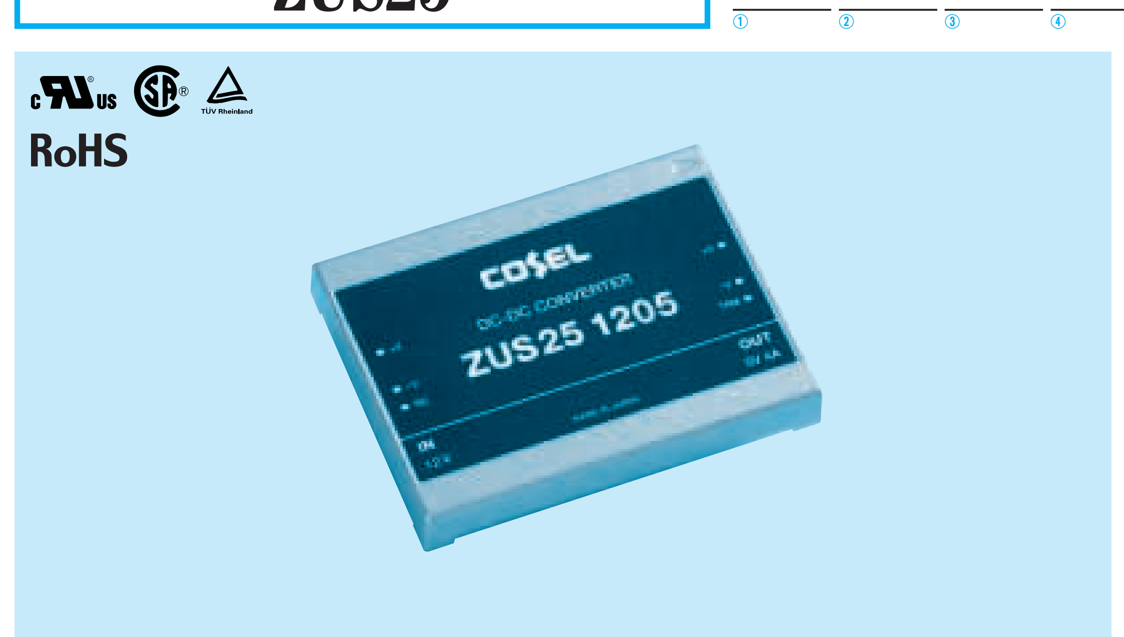
COSEL On-board type

ZUS25

Ordering information

ZU	S	25	12	05
①	②	③	④	⑤

①Series name
②Single output
③Output wattage
④Input voltage
⑤Output voltage



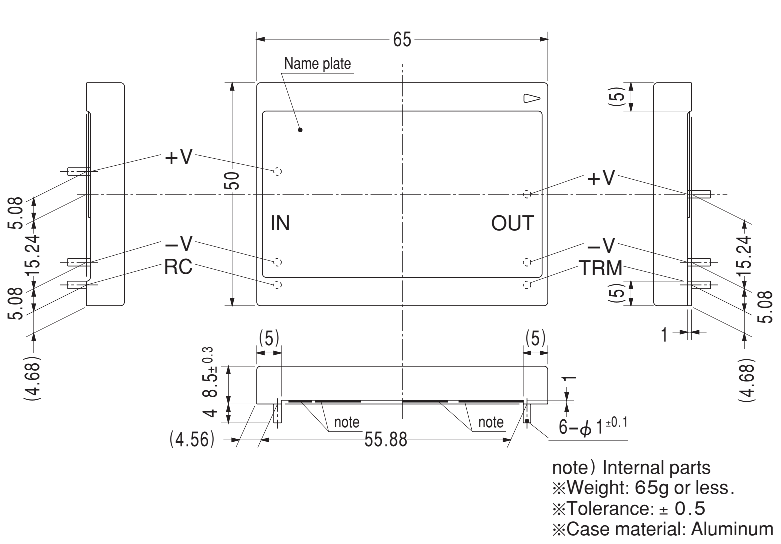
MODEL		ZUS25053R3	ZUS250505	ZUS250512	ZUS251205	ZUS251212	ZUS252405	ZUS252412	ZUS25483R3	ZUS254805	ZUS254812
MAX OUTPUT WATTAGE[W]		13.2	16.0	20.4	20.0	25.2	20.0	25.2	13.2	20.0	25.2
DC OUTPUT	VOLTAGE[V]	3.3	5	12	5	12	5	12	3.3	5	12
	CURRENT[A]	4.0	3.2	1.7	4.0	2.1	4.0	2.1	4.0	4.0	2.1

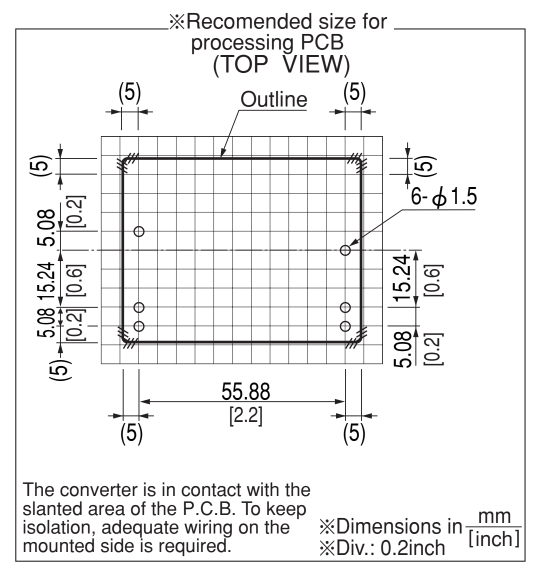
SPECIFICATIONS

	MODEL		ZUS25053R3	ZUS250505	ZUS250512	ZUS251205	ZUS251212	ZUS252405	ZUS252412	ZUS25483R3	ZUS254805	ZUS254812
INPUT	VOLTAGE[V]		DC4.5 - 9			DC9 - 18		DC18 - 36		DC36 - 75		
	CURRENT[A]	*1	3.66typ	4.00typ	4.98typ	2.03typ	2.47typ	1.02typ	1.23typ	0.35typ	0.51typ	0.62typ
	EFFICIENCY[%]	*1	72typ	80typ	82typ	82typ	85typ	82typ	85typ	78typ	82typ	85typ
OUTPUT	VOLTAGE[V]		3.3	5	12	5	12	5	12	3.3	5	12
	CURRENT[A]		4.0	3.2	1.7	4.0	2.1	4.0	2.1	4.0	4.0	2.1
	LINE REGULATION[mV]		20max	20max	48max	20max	48max	20max	48max	20max	20max	48max
	LOAD REGULATION[mV]		40max	40max	100max	40max	100max	40max	100max	40max	40max	100max
	RIPPLE[mVp-p]	*2	80max	80max	120max	80max	120max	80max	120max	80max	80max	120max
	RIPPLE NOISE[mVp-p]	*2	120max	120max	150max	120max	150max	120max	150max	120max	120max	150max
	TEMPERATURE REGULATION[mV]	0 to +55℃	50max	50max	150max	50max	150max	50max	150max	50max	50max	150max
	DRIFT[mV]	*3	20max	20max	48max	20max	48max	20max	48max	20max	20max	48max
	START-UP TIME[ms]		100max (Minimum input, Io=100%)									
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		Internally fixed (TRM pin open), adjustable by external VR									
			3.20 - 3.47	±5%						3.20 - 3.47	±5%	
	OUTPUT VOLTAGE SETTING[V]		3.20 - 3.47	4.85 - 5.25	11.4 - 12.6	4.85 - 5.25	11.4 - 12.6	4.85 - 5.25	11.4 - 12.6	3.20 - 3.47	4.85 - 5.25	11.4 - 12.6
PROTECTION CIRCUIT	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically									
	OVERVOLTAGE PROTECTION		4.0 - 5.25V	Works at 115 - 140% of rating						4.0 - 5.25V	Works at 115 - 140% of rating	
	REMOTE ON/OFF		Between RC and -side of input:short - 1.2V ・・・output ON, 2.4V - 5.5V(or open)・・・output OFF, Compatible to TTL									
ISOLATION	INPUT-OUTPUT		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)									
	INPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)									
	OUTPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)									
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-20 to +71℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max									
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max									
	VIBRATION		10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis									
	IMPACT		490.3m/s² (50G), 11ms, once each X, Y and Z axis									
SAFETY	AGENCY APPROVALS		UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1									
OTHERS	CASE SIZE/WEIGHT		65×8.5×50mm (W×H×D) / 65g max									
	COOLING METHOD		Convection									

*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%
*2 Measured by 20MHz oscilloscope.
*3 The drift is a change at 25℃ of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.
* Series/Parallel operation with other model is not possible.

External view

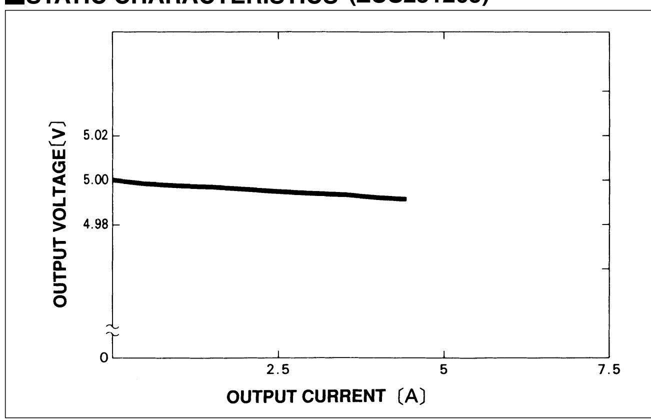




note) Internal parts
※Weight: 65g or less.
※Tolerance: ± 0.5
※Case material: Aluminum

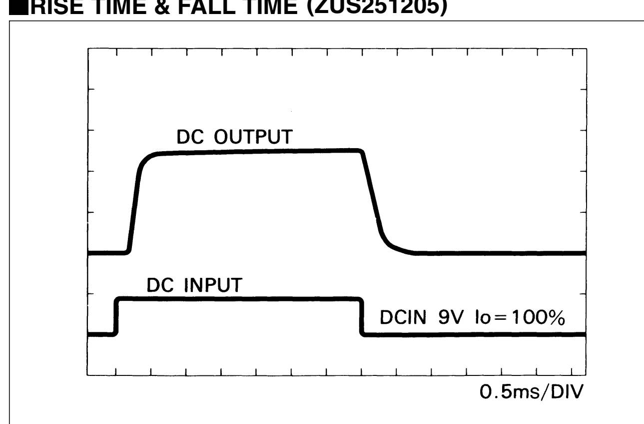
Performance data

■STATIC CHARACTERISTICS (ZUS251205)

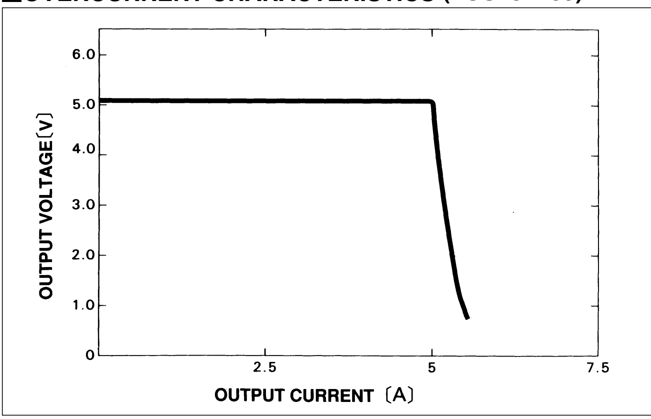


■RISE TIME & FALL TIME (ZUS251205)





■OVERCURRENT CHARACTERISTICS (ZUS251205)



■DERATING CURVE

